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TRENDS AND PROSPECTS OF INDUSTRIAL DEVELOPMENT IN ZAMBIA

(Presented by the Government of Zambia)

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TRENDS AND PROSPECTS OF INDUSTRIAL DEVELOPMENT IN ZAMBIA

Zambia attained independence in October 1964. Zambia's economy is built on copper which in recent years has provided about 60 per cent of monetary G.D.P. and over 90 per cent of the country's exports. With the soaring copper prices in 1964, the visible trade surplus was £90 million and the balance of payments surplus nearly £39 million. In 1964, G.D.P. was £340 million, which was an increase of over 16 per cent on 1963 and an increase in real output of 10 per cent.

The industrial development of Zambia was stifled by colonial trading policies, and by the economic effects of the Federation of Rhodesia and Nyasaland, which tended to attract and concentrate industry around Salisbury and Bulawayo, in Southern Rhodesia. The independent trading and industrial policy which began to be implemented after the break-up of the Federation on 31 December 1963, and which has been clearly formulated since Independence in October 1964, has resulted in a large upsurge in industrial growth in Zambia. It will be appreciated that this has been largely a period of making up the ground which was lost due to the stultifying effects of Federation.

It is recognised by the Government that certain industries should be promoted by the state. The motives for state promotion are for strategic or security reasons, or the industry's extreme importance in regard to national planning or where the industry is essential for the orderly development of the economy. There is no question of the Zambian Government nationalising industries already in existence, the policy being for state ownership of certain new basic industries and for state participation jointly with private enterprise in certain others. The remainder of the industrial field is open to private investors and the Government has created a tempting investment climate to encourage the inflow of capital for private investment.

The type of industrial investment envisaged by the Government, such as iron and steel industry or a fertilizer plant, requires a great deal of study and careful analysis. It is for this reason that the transitional

development plan, which is an extension of the old colonial type four year development plan and which is due to make way for the First Four Year Development Plan in July 1966, contains no specific provision for industry. It should be appreciated that Zambia is only now, after the brief period of consolidation since independence, in a position to take steps to co-ordinate an industrial programme. The first Four Year Development Plan will be Zambia's first attempt to use comprehensive and co-ordinated development planning to achieve social and economic goals. This plan will include specific proposals for state-owned industries, for "mixed" private-state owned industries and for the private sector. The Government will be in close consultation with the private sector in order to ensure that the private sector's investment programme is in tune with overall national development and does not suffer from a shortage of skilled manpower, foreign exchange, etc.

These last few months have brought home to the world the peculiar communications system in Central Africa. This is a relic of the territorial split of Africa during colonial times. The countries of Southern Africa, including Zambia, were and are, firmly tied together, whilst only tenuous links exist between Zambia and the countries on her Northern Borders. These facts led, logically, to Zambia's trading pattern. In 1964, Zambia imported nearly £31,000,000 of goods from Southern Rhodesia. This accounted for 39.5 per cent of Zambia's total visible imports. It will be appreciated that to change a trade pattern of this nature and magnitude calls not only for a complete re-assessment of alternate supplies, and a complete re-assessment of alternate routes, but also a large-scale programme for actually constructing alternative routes.

At the moment, Zambia's reserves of foreign exchange do not represent a constraint on national development. It is fully realised, however, that it is necessary to implement long term policies to ward off the eventuality of a shortage of foreign exchange which could limit the pace of economic development.

The greatest present constraint on development is the shortage of educated and skilled manpower. Zambia's stock of African school certificate

holders was not more than 1,200 in 1963/64 and not more than 100 Africans possessed University degrees at the same date. These facts explain the great emphasis which the Government is placing upon education and vocational training. Zambia also suffers from the Africa-wide problem of unemployment. It is estimated that in 1965, 90,000 people were seeking regular work (this figure includes both the unemployed and the under-employed in the rural areas).

PROSPECTS OF DEVELOPMENT IN PARTICULAR SECTORS OF INDUSTRY

A. Textiles

There is at present no textile industry in Zambia. It is envisaged that the state will participate along with private enterprise in this industry. A consultant has been commissioned and his report will be submitted to Government in December 1965, or January 1966. The local market is considered to be large enough to support a textile industry producing 10-12 million square yards of cloth per annum. Total capital cost is estimated at about £2,250,000 giving employment to about 550 people. Cotton is grown in Zambia and a cotton ginnery is in operation. It is anticipated that eventually all supplies of cotton lint for the textile industry will be supplied from local sources.

B. Food processing

1. Milling

Zambia is self-supporting in maize, but imports most of its other cereal requirements. Most cereal milling is carried out in Zambia.

2. Canning

Very little canning is being carried out. The possibilities are being considered. Zambia is not yet self-sufficient in beef, pork or mutton, milk and milk products, or vegetables. Many of the temperate zone fruits cannot be grown.

3. Sugar

The established sugar refinery at Ndola will be expanded, initially to a capacity of 30,000 tons a year, and eventually to a capacity of 60,000 tons a year. A sugar cane estate is in the process of being established. This estate will be producing by 1968 and should supply sufficient sugar to satisfy Zambian demand.

The first essential is to increase Zambian production of most food products. The processing of food products will develop as local production increases.

C. Forest industries

To produce the projected demands of industry and mining by 1993, for both quantities and sizes, some 160,000 acres of plantations will be required and the annual yield will then be of the order of 36,000,000 cubic feet of poles and sawlogs. The first output of sawlogs will be in 1971. To dispose satisfactorily of the very large volume of timber, other than sawn timber, generated by thinnings and waste from sawmills, it will be necessary to establish an integrated forest industries complex consisting of sawmills, board, plywood and paper mills. By the late 1980's, the volume of material available will be sufficient to meet the needs of a pulp mill of viable size capable of supplying most of Zambia's needs.

D. Building materials

1. Cement

The great burst in constructional activity due to the Transitional Development Plan and the general expansion effects of independence have led to an increase in demand for construction materials. The existing cement factory at Chilanga is working at full capacity. Extensions, at a cost of £1.1/4 million are being carried out at this factory. These extensions will increase the capacity by 107,000 tons per annum to a total of 300,000 tons per annum. In addition, a new factory is to be built at Ndola and is expected to be in operation in 1969. Lime and gypsum are obtainable in Zambia.

2. There are several Zambian manufacturers of metal doorframes and metal window-frames and their expanding capacity should be capable of meeting demands by early 1966. A factory to supply salt glazed pipes, tiles, bricks and hollow clay blocks will be in production by December 1966. Sanitary-ware is not produced in Zambia.

E. Engineering products

1. Motor Vehicles

Several international groups have set up small assembly plants in Zambia. These plants do not, at present, carry out a high degree of local manufacture.

2. Metal fabrication

Some forms of metal fabrication are carried out, mainly in connexion with mining.

3. Secondary engineering connected with mining

Wire ropes and cables, galvanized piping, steel tanks, rubber mouldings for pumps, flotation plants, drilling equipment, couplings, shanks, drill steels, etc.

F. Iron and steel - steel rolling mill

A report has been circulated to various steel makers asking them to submit propositions. Expected capacity will be 70,000 metric tons of rolled steel (bars, rods, angles, sections) and pig iron. The estimated cost is £12 million. Domestic demand will not be sufficient to take up total production and export markets must be obtained. Iron ore deposits are proved and are of good quality and of sufficient known quantity to support a mill of the proposed capacity for at least 100 years. Zambian coal supplies may not be of sufficient quality to produce a satisfactory coke. The possibilities of using charcoal or an electric process are being studied.

G. Non-ferrous metals - copper rolling and fabrications

Studies are being carried out to determine the feasibility of establishing some form of copper fabricating industry in Zambia. Cheap copper and power is readily available.

H. Basic chemicals

1. Fertilizers

Studies have reached an advanced stage in the consideration of this project. Nitrogenous fertilizer looks to have the best prospects based upon the cheap water and power available at Livingstone. It is estimated that the project would cost £8 million. The initial capacity is envisaged to be 30,000 tons per annum in terms of nitrogen equivalent. This would mean that, depending on the phasing of the project, a certain percentage of the output would need to be exported.

2. Chemical plants associated with mining - sulphuric acid

120,000 tons per annum are produced in Zambia - sufficient capacity to supply the Zambian market.

I. Crude and refined vegetable oils, edible fats, etc.

Two large international organisations have set up factories in Zambia and by the end of 1966 they will be supplying the bulk of Zambia's needs in the field of crude and refined vegetable oils, edible fats, nonsoapy detergents, soaps, margarine, polishes, disinfectants, etc. Zambian grown groundnuts form the main source for edible oils.

J. Cycle tyres and tubes

A large international concern should be in production and supplying the requirements of the Zambian market by the end of 1966.

K. Grain bag manufacturing

A bag producing factory is to be established in Lusaka with an initial capacity of 1.1/4 million bags (demand in 1965 was for 3½ million bags).

Fibre will be drawn from two types of locally produced fibre. Kenaf, which grows well in Zambia will provide one source, while doum fibre will be produced from the leaves of the doum palm (Hyphaene Ventricosa) which grows indigenously in the Feira District. Initial capital costs will be £1 million.

Much of Zambia's industry is, in comparison with the standards of developed countries, medium or small scale industry. Most of this type of industry is in the private sector. The expansion of industry has been particularly obvious in the field of clothing where the number of firms has mushroomed from about 6 at the end of Federation in December 1963, to 38 in November 1965. It is Government's policy to ensure that opportunities are open to Zambians to participate in the industrial field. Therefore, arrangements have been made, for both individuals and for co-operatives, to obtain loans for viable products without regard to the normal commercial criteria of security and know-how. The development of industry in the rural areas is being considered as a separate measure and investigations into the means of encouraging this type of development are being undertaken at the moment.

SELECTED ASPECTS OF INDUSTRIAL DEVELOPMENT

(i) Industrial programming and project evaluation

Two factors have combined to delay and hinder the formation of operational industrial planning and evaluation units. The first factor is the comparatively short period of independence which Zambia has enjoyed allied to a colonial inheritance which did not include any type of comprehensive national or industrial planning. The second factor is that the Federal Government of Rhodesia and Nyasaland was directly responsible for commerce and industry, and to this end all industrial, commercial and industrial planning was carried out in Salisbury. The Ministry of Commerce and Industry in Lusaka was only formed in January 1964, whilst the Office of National Development and Planning was formed in October 1964. As an added complication the

statistics compiled during the Federal era were not split up to cover the three constituent countries of, as they were then, Northern Rhodesia (Zambia), Southern Rhodesia and Nyasaland (Malawi).

It is only in recent months that a rough industrial input-output table has been formulated. A provisional list of import substitution industries has been drawn up.

Project evaluation is carried out in the Ministry of Commerce and Industry aided by the Industrial Development Corporation. (This excludes all of the private enterprise projects). An ad hoc system has grown up of appointing industrial consultants to carry out project analyses. These project analyses are then studied by Government experts who put their recommendations to the Government. At the moment the list of industries which will be state-owned is short, amounting only to grain bag manufacture, steel rolling mill and a fertilizer factory. In those industries where Government will participate with private industry, a variety of methods of assigning the responsibility for project evaluation have grown up. Where the industry already exists, and it is simply a question of an expansion partly financed by the State, then the project evaluation is left to the established industry. This has been the case in cement and sugar. Where a new project is envisaged, the Ministry of Commerce and Industry in close conjunction with the government-controlled Industrial Development Corporation arranges for private consultants to carry out the required study. After the study has been completed, and if Government decides that the project is viable, then approaches will be made to established and experienced industrialists to participate in the venture. This is the intended approach to the textile industry and to a tannery project. A third method is a continuation of one of the functions of the Industrial Development Corporation which originated before independence. The particular function of the Corporation is to loan money or to take equity participation in viable industrial projects. This enables the Corporation to carry on independently and to enter into arrangements without necessarily consulting the Ministry of Commerce and Industry. However, co-ordination is retained because the Ministry of Commerce and Industry provides two members of the Board of the Corporation.

MANPOWER REQUIREMENTS AND THE TRAINING OF TECHNICAL AND MANAGERIAL PERSONNEL

To remedy the extreme shortage of educated manpower the Government has embarked on a major programme of secondary school expansion which will double the secondary school intake in 1966 alone, and increase the intake by a similar margin in the following year. At higher levels the Government has made plans for a National University - the University of Zambia - which will open in March 1966. In addition, each year large numbers of students from Zambia have gone abroad to study at universities and training institutions. In 1965, 760 persons from Zambia were on government scholarships or in other ways were studying abroad, 350 of them being due to return in 1965 alone. In the meantime, before the output of these new educational and training institutions will begin to appear, the country must continue to rely heavily on expatriate employees. In 1965, 31,400 non-Africans were employed in the Zambian economy and these provided the bulk of the skilled and educated labour force.

The attempt to develop comprehensive manpower planning in Zambia has followed two main lines of action. The first is the creation of a single manpower planning committee with terms of reference covering the full range of manpower planning in both the public and private sectors. The second is to build up the information necessary for making well-grounded policies and to set up procedures ensuring that this information will continue to be available on a regular basis. A number of steps have been taken to consolidate information on the use of manpower, the output of the school system, future plans for departmental training, immigration and emigration records, the rate of resignation from government service, the number of Zambians studying abroad and so forth. In addition, private employers have been circulated to obtain their present and future labour demands categorised as to educational level and vocational ability.

The Government is at present studying the possibilities for setting up a management training institution. There are two technical training colleges in Zambia which are providing technicians for industry; these are insufficient for the demand and expansion to be carried out.

FINANCING OF INDUSTRY

Since January 1964, the great bulk of investment in industry has been carried out by the private sector. It is estimated that investment and committed investment in the private sector during this period amounted to £18.1/4 million. The bulk of this investment was provided from private sources, the Industrial Development Corporation, which is Government-owned, investing £400,000 in 1964 and £500,000 in 1965. It is estimated that 75 per cent of the capital is supplied from non-Zambian sources (roughly £13½ million).

The Four Year Development Plan which will commence in July 1966, has not yet been formulated but it is likely that £30 million of the planned expenditure will be spent on industrial projects. It is envisaged that certain of the projects will include private sector participation. It is estimated that such participation will amount to £4 million. It is not possible at the moment to estimate the private sector's investment programme during the period of the plan. A series of meetings will be held between Government officials and representatives of the private sector with the intention of associating the private sector with the Four Year Development Plan, and obtaining investment plans from the private sector which will allow the Planning Office to calculate total national demands for construction capacity, skilled labour, foreign exchange, etc.

The Industrial Development Corporation (which was mentioned above) is a wholly-owned government institution which provides loans or takes equity interest in commercially proven projects in the industrial and commercial fields.

Negotiations have reached an advanced stage with two international industrial development finance bodies to set up, together with the Government of Zambia, a non-government-controlled finance institution for the provision of financial assistance to private enterprise on normal commercial terms. When this new body is established, the Industrial Development Corporation will concentrate on two main functions: The first will be as the holding, financing and managing body for all government's interests

in industry. The second will be to promote Zambian entrepreneurship whether in the form of individuals, companies, or co-operatives, in both industry and commerce.

INSTITUTIONS AND TECHNIQUES FOR INDUSTRIAL RESEARCH AND PROMOTION

Zambia has no institutions to carry out industrial research. When the University of Zambia is fully operational it is expected that industrial research will be carried out in certain of the University faculties. At the moment, therefore, Zambia is almost entirely dependent on research carried out in foreign institutions at the Zambian Government's request, or in the case of the private sector, in the foreign laboratories of companies which have Zambian subsidiaries. The only exception is in the research laboratories of the two mining groups. Anglo-American and Roan Selection Trust. At the moment there is a possibility that the Anglo-American group have made a major breakthrough in the treatment of refractory copper ores.

In the field of industrial promotion the major effort, up to date, has been in the creation of an attractive investment climate. Examples of this are:-

(i) The whole of capital funds brought into Zambia, including any increase in capital, may be repatriated.

(ii) Interest and dividends are freely payable to any country in the world.

(iii) The Customs Tariff offers protection to Zambian industries.

(iv) Rebates of import duty are made for raw materials used in manufacturing processes.

(v) Drawbacks of duty are given for duty paid on goods subsequently exported.

(vi) Investment allowances amounting to 110 per cent of cost are given for plant and machinery. In addition generous allowances are given in respect of buildings.

(vii) Certain companies may qualify for pioneer status in respect of specified products. Pioneer status enables a company to enjoy tax relief for periods of up to five years.

(viii) Machinery and plant may be imported duty free from any source.

(ix) The Exchange Control Regulations provide no restrictions in respect of payments made to any country for purchases of commercial and industrial goods.

(x) Loan facilities are available.

EXPORT OF MANUFACTURED PRODUCTS

Zambia's exports of manufactures are very small, the most important items being (1964 figures):-

	Quantity	Value
Cigarettes	109,101 lb.	£104,197
Railway sleepers (wooden)	363,950 cu.ft.	168,487
Parquet blocks or strips.	414,903 cu.ft.	203,840
Balls, steel for tube mills	52,459 Centals	94,590
Footwear plastic	296,194 pairs	117,221

The railway sleepers and parquet blocks and strips involve only a small degree of manufacture as they are rough sawn items. The cigarettes and plastic footwear exports are expected to decrease substantially as the companies responsible for their manufacture have factories in the main export markets (Southern Rhodesia and South Africa).

The exports were temporary in that the parent companies divided, in the transitional period before commencing production of all the lines, production between their factories in the three countries.

Zambia's expanding manufacturing industry and projected industrial programme make it obvious that export markets for manufactured products will be necessary in the near future. It is for this reason that the Zambian Government welcomed the initiative of the Economic Commission for Africa in convening the recent Lusaka Conference on Industrial Co-ordination in East Africa. The Zambian Government has accepted in principle, the recommendations adopted by the Lusaka Conference to establish an Economic Community of Eastern Africa.

INDUSTRIAL STANDARDS

Zambian industry operates generally under British Standard Specifications. Due to Federation that Standards Bureau for Zambia, Malawi and Southern Rhodesia is situated in Salisbury. This arrangement is not acceptable and it is the intention of the Zambian Government to establish a Standards Bureau in Zambia.

THE ROLE OF EXTERNAL RESOURCES IN INDUSTRIAL DEVELOPMENT

The rapid development of Zambian industry in the short period of internal self-government and independence (post January 1964) has been largely due to the expansion of the private sector. It is recognised by the Zambian Government that this form of development is, in the national sense, the cheapest available. Not only is a very high percentage of the capital required brought in from foreign sources, but also managerial and technical skills are imported where Zambians are not available. This has enabled the Government to use its own source supply of trained Zambians for Government projects. It has been impressed on foreign industrialists that if they manufacture in Zambia they must ensure the rapid and accelerated training of Zambians to managerial and technical posts.

It is the policy of the Zambian Government to pursue an uncommitted role in world affairs. This enables the Government to call for assistance from any foreign source.

It is considered that the most valuable long term means of aid which the developed countries can extend to the developing countries can be given in two spheres. The first is to stabilise raw materials world markets at a higher and more equitable price level. The second is for the developed countries to drastically lower their tariff barriers for the less sophisticated part-manufactured and manufactured goods which will increasingly be produced by the developing countries.